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ABSTRACT

Total employment in Southern United States increased 20.1 percent from 1940-50 and 13.6 percent from 1950-60 compared with 25.4 and 14.5 percent for the nation as a whole. The proportion of workers in the South to the entire United States decreased from 26.8 percent in 1940 to 25.4 percent in 1960. Over the 10-year period from 1950-60 the South suffered a net loss of 1.2 million persons and an out-migration of 650,000 Negro workers. For the 20-year period, white collar employment rose by 3.2 million, blue collar by 2.5 million, service by 700,000, while farm employment declined 2.6 million. The change in the size of the labor force was projected to be 25.8 percent from 1960-1970 and 19.6 percent in 1970-80. These projections were greater than for the nation as a whole because of prospects for better education and training programs, reduction in out-migration, changes in age distribution, more urbanization, industrial growth, and more equal employment opportunity in the South. For a report on age distribution and employment participation rates see VT 010 238. (BC)

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OCCUPATIONAL ADJUSTMENT IN THE SOUTH:

I. A SUMMARY OF OCCUPATIONAL EMPLOYMENT IN THE SOUTH, 1940-1960, AND PROJECTIONS FOR 1970 AND 1980

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CENTER RESEARCH AND DEVELOPMENT REPORT NO. 2

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1968

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FORWARD

The two reports presented under the general title "Occupational Adjustments in the South" represent a worthwhile contribution to the literature on occupations. The material developed in these reports provides future researchers with a compendium of statistics carefully extracted from official sources and will undoubtedly prove a valuable resource for many researchers interested in studying occupations in the southern states. Material has been gathered from widely disparate sources, and this, together with valuable extrapolations, projections and evaluations, is provided for the first time in a readily accessible form.

The publication of these reports, reflects, to some extent, the nature of the Center's commitment to its regional base. The Center's commitment is in no sense entirely regional; however, it does recognize a responsibility within its regional area to provide information of particular value to that region, as well as to the whole of occupational education.

The manuscript was reviewed by a panel whose members include Dr. David G. Ball, Associate Professor of Economics; Dr. James G. Maddox, Professor of Economics; Dr. Joseph T. Nerden, Professor of Industrial and Technical Education; and Dr. William D. Toussaint, Professor and Head, Department of Economics; all of North Carolina State University at Raleigh.

Special assistance in the final preparation of the manuscript was provided by Mr. J. K. Dane, Staff Editor; Mrs. Sylvia Ray,

Mrs. Nan Adams, and Mrs. Mabel Rountree, all of the Center for Occupational Education. The Center acknowledges the contribution of these persons.

John K. Coster, Director
Center for Occupational Education

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INTRODUCTION

This is the initial report in a series of studies on occupational adjustments in the South, which is defined here as the 13 contiguous states extending from Virginia and Kentucky southward to Oklahoma and Texas. Occupational changes from 1940 to 1960 are examined from the historical base of decennial census statistics. Occupational employment in 1970 and 1980 is projected by making adjusted extrapolations of occupational employment since 1940 and applying percentages of distribution of BLS labor force projections for 1970 and 1980. The results are projected numbers of southern workers employed in each main occupation.

The purposes of this report are (1) to present a statistical overview and a very brief analysis of the nature, causes and effects of these changes, and (2) to provide a setting and much data to facilitate research in occupational participation rates, inter-occupational mobility, and several other aspects of southern occupational change.

In preview, it may be noted that numerous favorable adjustments have occurred in the southern occupational and industrial structure over the period being examined. Transfer of rural and farm-based human resources to more economically productive non-farm employment has been one of the broadest developments, but it also has entailed some net out-migration of population from nearly all southern states. In almost no sense have these population and labor force movements been planned, and displaced or underemployed southern workers should be given credit for courage and flexibility displayed in transferring their meager assortment of education and skills. The adjustments have not been easy, either for the individual or for

society. Many urban problems of the present, both in the South and the non-South, are directly attributable to tasks of assimilating large numbers of poorly educated, occupationally untrained workers and their families who have migrated to cities in recent decades.

Partly because of inadequate education and occupational training programs, the continued growth of southern industry had been characterized by relatively high employment in nondurable goods production and in occupations which require little or no pre-employment training. However, significant progress should be accomplished through the influence of general and occupational education programs now being conducted and implemented. In consonance with overall objectives of this project, it is particularly hoped that the summaries, discussions, and projections will provide guidance in planning occupational education and in more effective occupational utilization of the South's human resources.

OVERALL EMPLOYMENT LEVELS, TRENDS, AND INFLUENCES

Between 1940 and 1950, total employment in the South increased by 20.1 percent. For the United States the increase was 25.4 percent. For 1950-60, the increase was only 13.6 percent in comparison with 14.5 for the nation. For the two decades, 1940-1960, net employment increase was 4.2 million or 36.4 percent in comparison with 43.7 percent for the United States as a whole. As a proportion of the nation's employed workers, the South's share was reduced slightly, from a percentage distribution of 26.8 percent in 1940 to 25.4 percent in 1960. Employment by states is shown in Table 1, while Tables 2 and 3 show regional details by occupation. Percentage distributions by occupation are shown graphically in Figure 1. Projected levels of the labor force and occupational employment are shown in Tables 8 and 9.

Behind these regional changes may be discerned national, state, and local manifestations of some great socio-economic developments of our time, including accelerated investments in human resources and increased use of physical and human capital in social overhead as well as in private productive enterprise. But by 1960, there had been only minor implementation of judicial decisions in regard to minority civil rights or fair employment statutes. Intensive programs of the mid-sixties in furtherence of equal employment opportunities and a variety of remedial education and occupational training measures had not yet been initiated.

Table 1. Total employment levels and percentage changes in the South, by states, 1940 to 1960.

State	Numbers Employed (Thousands)			Percentage Changes		
	1960	1950	1940	1950-60	1940-50	1940-60
Virginia	1,341	1,150	905	16.6	27.1	48.1
North Carolina	1,605	1,463	1,203	9.7	21.5	33.4
South Carolina	804	755	656	6.5	15.1	22.6
Georgia	1,385	1,254	1,093	10.4	14.7	26.7
Florida	1,720	1,009	678	70.5	48.8	153.7
Kentucky	936	954	840	-1.9	13.6	11.4
Tennessee	1,222	1,135	941	7.7	20.6	29.9
Alabama	1,066	1,032	891	3.3	15.8	19.6
Mississippi	682	716	727	-4.7	-1.5	-6.2
Louisiana	1,008	876	768	15.1	14.1	31.3
Arkansas	565	616	583	-8.3	5.7	-3.0
Oklahoma	786	754	654	4.2	15.3	20.2
Texas	3,319	2,758	2,112	20.3	30.6	57.1
Totals Region	16,439	14,472	12,051	13.59	20.09	36.41

Source: U. S. Census of Population Reports for the respective states. PC (1) series 1960, Table 59. U. S. Summary, 1960, Table 201; 1950, Table 125.

Table 2. Occupational employment in the South, 1940-1960. Numbers, percentage distributions and comparisons with U. S. data.

Main Occupation	Number Employed			Percentage Distribution					
				1960		1950		1940	
	1960	1950	1940	South	U. S.	South	U. S.	South	U. S.
	(thousands)								
1. Professional, technical	1,581	1,036	706	9.62	11.19	7.16	8.72	5.86	7.96
2. Farmers, farm managers	905	1,942	2,494	5.51	3.88	13.42	7.64	20.70	11.45
3. Managers	1,402	1,164	790	8.53	8.37	8.04	8.92	6.56	8.08
4. Clerical workers	1,933	1,288	693	11.76	14.40	8.90	12.32	5.75	9.78
5. Sales workers	1,137	915	625	6.91	7.18	6.32	6.92	5.18	6.86
6. Craftsmen, foremen	2,060	1,677	952	12.53	13.52	11.59	13.86	7.90	11.47
7. Operatives	3,012	2,537	1,672	18.32	18.41	17.53	19.81	13.88	17.86
8. Private household workers	756	596	823	4.60	2.67	4.12	2.50	6.83	4.65
9. Service workers	1,331	978	652	8.10	8.42	6.76	7.61	5.41	7.11
10. Farm laborers, foremen	639	1,119	1,644	3.88	2.24	7.73	4.28	13.64	6.92
11. Laborers, excluding farm and mine	950	1,006	904	5.78	4.81	6.95	6.09	7.50	6.92
12. Occupations not reported	733	214	96	4.46	4.91	1.48	1.33	.79	.94
Totals - South	16,439	14,472	12,051	100.00	100.00	100.00	100.00	100.00	100.00
Totals - U. S.	64,639	56,435	44,988						
South as percent of U. S.	25.43	25.64	26.79						

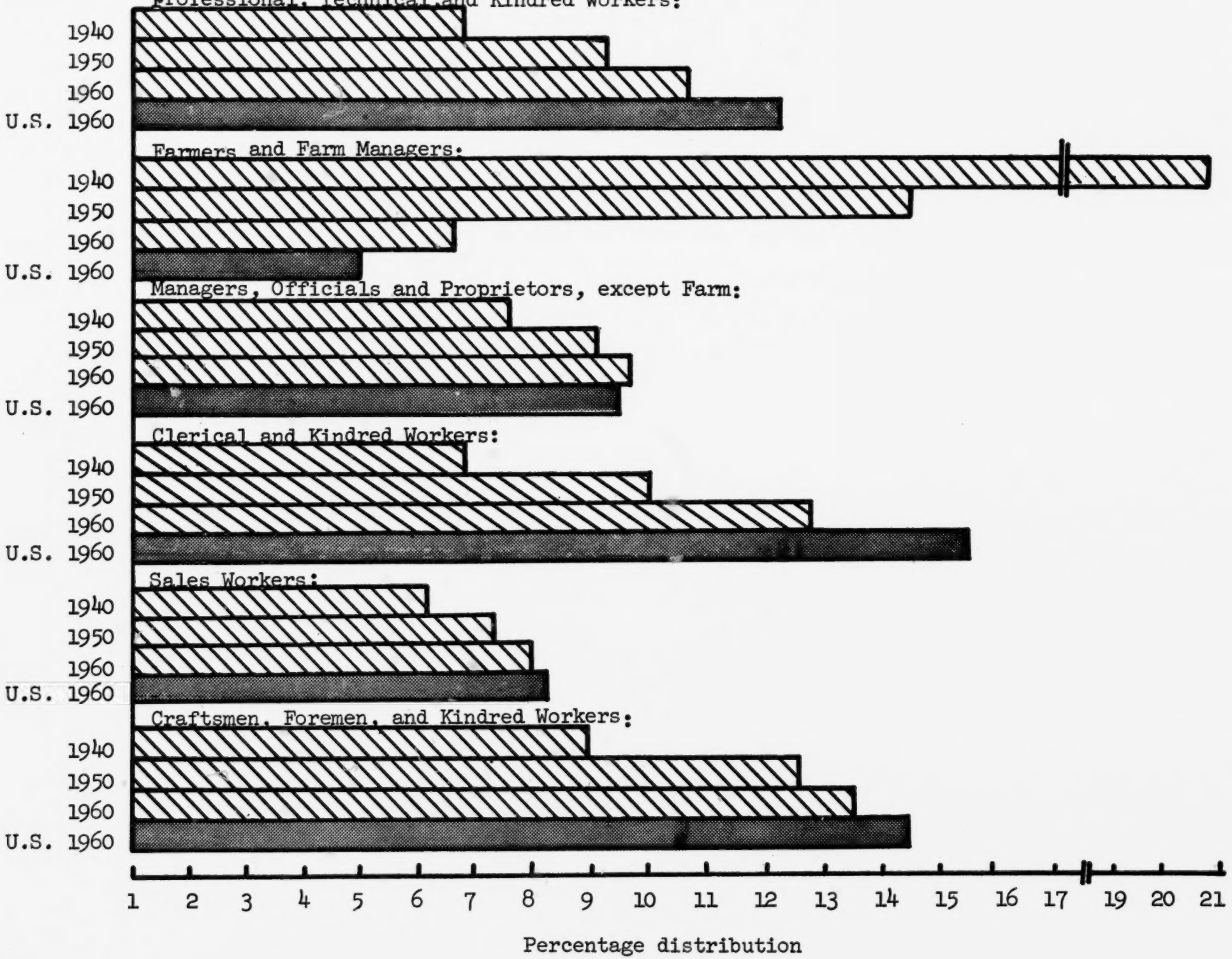
Source: U. S. Census of Population Reports. Aggregated and computed from PC (1) series for respective states, Table 59. U. S. Summary, 1960, Table 201; 1950, Table 125.

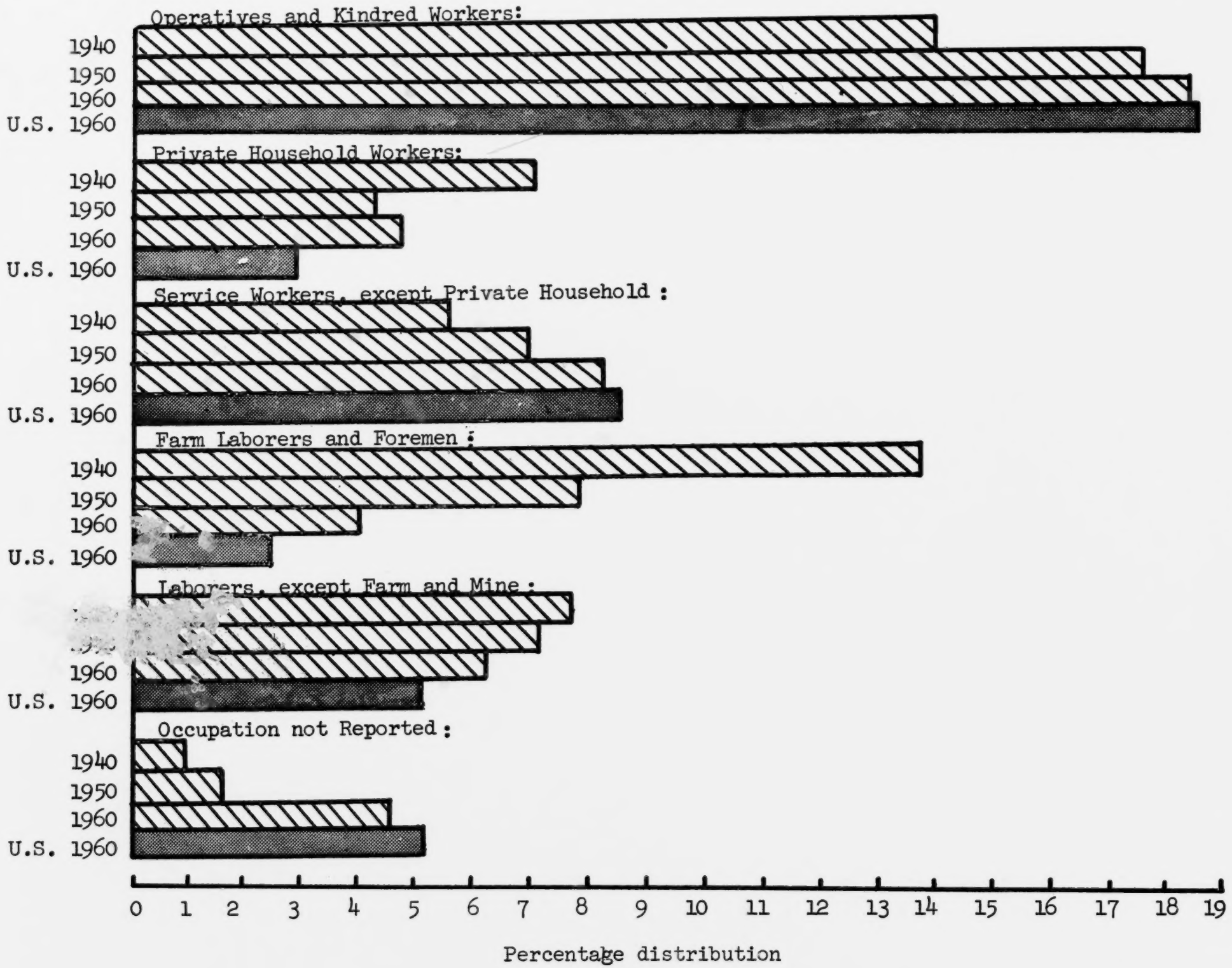
Table 3. Changes in employment in the South, by occupation, 1940-1960. Numbers, percentage changes and comparisons with changes in the United States.

Main Occupation	Changes in Employment			Percentage Changes 1950-60		1940-50		1940-60	
	1950-60	1940-50	1940-60	South	U. S.	South	U. S.	South	U. S.
	(thousands)								
1. Professional, technical	545	330	875	52.57	46.95	46.73	37.72	123.86	102.40
2. Farmers, farm managers	-1,036	-553	-1,589	-53.37	-41.88	-22.16	-16.19	-63.70	-51.29
3. Managers	238	374	612	20.44	7.40	47.37	38.95	77.46	49.23
4. Clerical workers	645	596	1,241	50.04	33.80	85.95	59.62	179.01	106.12
5. Sales workers	222	290	512	24.29	18.74	46.39	27.05	81.94	50.86
6. Craftsmen, foremen	383	725	1,108	22.85	11.77	76.16	51.80	116.41	69.68
7. Operatives	476	864	1,340	18.75	6.41	51.69	39.34	80.13	48.28
8. Private household workers	160	-227	-67	26.87	22.30	-27.56	-32.42	-36.20	-17.35
9. Service workers	354	326	680	36.18	26.70	50.06	34.79	104.34	61.39
10. Farm lab, foremen	-480	-525	-1,005	-42.92	-40.20	-31.95	-22.17	-61.16	-53.47
11. Laborers, excluding farm and mine	-56	102	46	-5.52	-9.6	11.29	10.75	5.14	.16
12. Occupations not reported	516	119	635	240.51	328.50	123.22	77.93	660.09	662.47
Totals	1,967	2,421	4,388	13.59	14.50	20.09	25.44	36.41	43.68
South as percent of change in U.S.	23.97	21.15	22.33						

Source: U. S. Census of Population Reports for 1940, 1950 and 1960. Aggregated and computed from PC(1) series for respective states, 1960, Table 59. U. S. Summary, 1960, Table 201; 1950, Table 125.

Figure 1. Occupational distribution of employed workers in the South, 1940-1960




Operatives and Kindred Workers:
1940
1950
1960
U.S. 1960
Private Household Workers:
1940
1950
1960
U.S. 1960
Service Workers, except Private Household :
1940
1950
1960
U.S. 1960
Farm Laborers and Foremen :
1940
1950
1960
U.S. 1960
Laborers, except Farm and Mine :
1960
U.S. 1960
Occupation not Reported :
1940
1950
1960
U.S. 1960
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Percentage distribution

Several variables other than industry growth, which are prominently associated with employment changes in the South, will be more specifically related to occupations in a later report. These factors include sex, age, color, geographical migration and inter-occupational mobility of workers.

Employment Changes by Sex

Increased participation by women in census-defined employment has been one of the most important labor force developments since World War II. Within the female population in the South, ages 15 and above, the proportion at work was raised from 21.7 percent in 1940 to 32.2 percent in 1960. Women provided more than 62 percent of the next gains in total employment made by both sexes in the South between 1940 and 1960.

Civilian employment participation in the South for the male population 15 years and over declined from a rate of 72.3 percent in 1940 to 63.3 in 1960. This was not due to increased unemployment, but because substantially more teenagers and young adults remained in school or took part in training programs; because of increased requirements for military service; and because declining agriculture, expanding social security and welfare programs and other retirement alternatives were instrumental in reducing employment in the South in male age groups 65 years and over. Participation rates for these older people declined from 45.3 percent in 1940 to 27.8 percent in 1960. Net in-migration of retired persons into the South also helped to accentuate the decline in employment participation rates.

Age Considerations

In the United States in 1940, the median age of employed males was 38.3 years, and the median had advanced to 40.6 years by 1960. Among females the median was 32.3 years in 1940, and a much greater advance was registered, the median in 1960 being 40.4 years.

In the South, median age of employed males advanced from 35.8 to 39.6 years and for females the increase was from 32.2 to 39.4 years during the 1940-1960 period. Thus, both in the nation and in the South, age distributions have been changing and median ages of workers have been increasing. An analysis of age differentials among employed workers requires detailed consideration of the age structure of population, occupational distribution and other aspects. These will be examined in Part II of this study series, which is concerned with age distribution patterns and employment participation rates by occupation.

Color and Some Employment Effects

The past two decades have witnessed heavy net out-migration of Negroes from nearly all southern states. Between 1950 and 1960, total employment of non-whites in the South declined and non-white workers as a percentage of all workers decreased even more markedly, as Table 4 indicates.

Numbers of non-white women workers increased during the decade while numbers of non-white males declined. However, all female employment increased significantly, and the distribution of non-whites, as a percentage of all women workers, was lower in the South in 1960 than in 1950.

Table 4. Non-white employment in the South, 1950-1960.

Year	Total Number of Non-whites Employed			Non-white Workers as Percentages of all Workers Employed		
	Male	Female	Totals	Male	Female	Totals
1950	2,185,312	1,087,705	3,273,017	20.65	27.96	22.62
1960	1,919,286	1,266,846	3,186,132	17.46	23.25	19.38
Percentage Changes, 1950-1960						
	-12.17	17.47	-2.65	-3.19	-4.71	-3.24

Source: U. S. Census of Population. Aggregated and computed from reports for the respective states; 1960, Table 76; 1950, Table 38.

There are marked differentials in proportions of whites to non-whites employed in various skills, which will become evident when the main occupations are examined. Table 5 provides a preview of these differences by showing percentages of whites and non-whites in each main occupation, by sex. Employment of Negroes is very low in the white-collar and skilled professions, but they provide the bulk of the household workers, nearly 40 percent of service workers, and nearly one-half of all laborers, both farm and non-farm.

Geographical Migration

Between 1950 and 1960, the South suffered a net loss of 1.2 million persons of all ages by geographical migration out of the region. As percentages of survivors, net migration balances ranged from -19.5 in Arkansas and -16.6 in Mississippi to gains of 48.5 percent in Florida

Table 5. Percentage distribution of white and non-white workers employed in the South by main occupation and sex, 1960 census.

	Males		Females		Totals	
Main Occupation	White	Non-white	White	Non-white	White	Non-white
Profess., technical	94.3	5.7	86.0	14.0	90.8	9.2
Farmers, farm mgrs.	82.2	17.8	68.9	30.1	79.6	10.4
Managers, officials	97.7	2.3	94.0	6.0	97.2	2.8
Clerical workers	93.5	6.5	97.3	2.7	96.5	3.5
Sales workers	97.7	2.3	96.7	3.3	97.6	2.4
Craftsmen, foremen	91.9	8.1	90.8	9.2	91.8	8.2
Operatives	79.3	20.7	87.6	12.4	81.8	18.2
Household workers	25.7	74.3	19.2	80.8	19.4	80.6
Service workers	60.4	39.6	64.8	35.2	62.9	37.1
Farm laborers, foremen	54.3	45.7	39.2	60.8	51.6	48.4
Laborers, non-farm	51.3	48.7	61.6	38.4	51.6	48.4
Occ. not reported	77.6	22.4	77.0	23.0	77.4	22.6
Totals employed	82.5	17.5	76.7	23.3	80.6	19.4

Source: U. S. Census of Population Report, 1960. Aggregated and computed from reports from respective states, Table 76.

and 1.2 percent in Texas.[1] Exclusive of Florida, the other southern states sustained a net migration loss of more than 2.8 millions of persons during the decade.

The estimated net out-migration of persons in ages 15 years and over amounted to 782,992. There were 1,197,528 non-white net out-migrants and 269,242 white net in-migrants who were 15 years or older in 1960. A very large proportion --more than 70 percent--of the white in-migrants, were over 55 years of age, but more than 82 percent of the non-white net out-migrants of labor force ages were under 45 and 30 percent were less than 25 years of age.

On the basis of 1960 work participation rates in the South, out-migration over the decade represented a net loss of nearly 400,000 Negro male workers and about 250,000 Negro female workers. These manpower losses were reduced to about 600,000 by net in-migration of approximately 50,000 white workers. It is virtually impossible to produce definitive estimates regarding occupational mobility associated with migration, except in relatively small samples where detailed job histories of individuals are available to indicate occupational qualifications and employment both before and after migration. However, net inter-occupational changes will be examined later in this project in an aggregate context.

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[1] Data aggregated from Vol. II, Net Migration of the Population, 1950-1960, by Age, Sex and Color. E. R. S., U. S. Department of Agriculture, Washington, D. C.

OCCUPATIONAL EMPLOYMENT

In comparison with the United States, the South has made greater employment gains, percentage wise, in every main occupation. In farming, losses were sustained nationwide. However, gains in the South were made from relatively smaller non-farm bases, and by 1960 percentage distribution in the South remained lower than in the nation for every non-farm occupation except household servants managers and laborers.

Between 1940 and 1960, employment in white-collar occupations in the South increased by 3.2 million workers. In blue-collar or production jobs the increase was 2.5 millions. For service occupations it was .7 million. Increased employment where occupation was not reported was tabulated at about .6 million. The farm occupations suffered a net loss of 2.6 millions, of which more than 60 percent were farm operators. Occupational employment in the South may be examined in more detail by reference to Table 2 and 3, and to Figure 1, in which percentage distributions by occupation are shown graphically. Order of rank among occupations in growth is shown in Table 6.

The remainder of this chapter provides a brief examination of each main occupation with reference to area employment concentration of the occupation in the South, some of its principal growth determinants, and general outlook.

Professional and Technical Occupations

It is impossible to over-emphasize the importance of this group as an instrument of productivity and change. It is the most diverse and exacting of all occupation groups in prerequisites for education and

specialized training. There is hardly any professional classification in which shortages of well qualified workers are not being felt.

Table 6. Order of relative increases in numbers of workers employed in the South 1940-1960, by main occupations, and by gains in percentage distribution.[3]

Main Occupation	Rank Order in Magnitude of Changes			
	Increase in Numbers		Increase in Percentage Distribution	
	South	U. S.	South	U. S.
Operatives	1	2	3	5
Clerical workers	2	1	1	1
Craftsmen, foremen	3	4	2	3
Professional, tech.	4	3	5	2
Service workers	5	5	4	4
Managers	6	6	6	7
Sales workers	7	7	7	6
Laborers, non-farm	8	8[a]	8[a]	9[a]
Private H. H. workers	9[a]	9[a]	9[a]	8[a]
Farm Laborers, foremen	10[a]	10[a]	10[a]	10[a]
Farmers, farm mgrs.	11[a]	11[a]	11[a]	11[a]

Note a: total employment or percentage distribution decreased.

Virginia in 1960 had the highest percentage distribution of professional workers in the South, due in part to extensive employment by government and research organizations in the Washington area. Oklahoma and Texas also had relatively high percentages, because of petro-chemical, aircraft and space engineering and related enterprises. However, the bulk of demand for professional and technical workers is not in the

[3] Rankings were based on data contained in Tables 2 and 3.

manufacturing sector, in which less than 20 percent of this group are employed, but in education, government and private research, welfare and health services. The scope of these activities is broadening significantly.

Managers, Officials, and Proprietors

This non-farm managerial group has maintained comparatively stable percentage distributions. Requirements due to growth in numbers and size of firms have been offset to some extent by increasing utilization of clerical employees, machine records systems and computers to aid in management and control. Gains through inter-occupational transfer of experienced personnel from other occupations have been relatively greater than in any other main occupation.

Florida stands well ahead of the South and the nation as a whole in percentage of managerial personnel, due probably to its rapid growth and opportunities for small business and service-type enterprises. One out of every nine persons employed in Florida in 1960 was in a non-farm managerial position.

Clerical and Kindred Workers

More than two-thirds of the workers in this group are women, but the great expansion in job opportunities and employment participation among women in the clerical occupations has been slightly less marked in the South, where there are relatively fewer large government and corporate headquarters to generate demands for clerical workers. In addition, educational deficiencies and racial considerations appear to have had some adverse effects upon employability. Among southern women employed as clerical workers in 1960, only one in 49 was a Negro.

As in the case of professional workers, and for generally the same reasons--employment by government or large corporations--the heaviest percentage distributions of clerical employment in the South are in Virginia, Oklahoma and Texas. However, gains have been substantial throughout the region, with percentage distribution being more than doubled in six states between 1940 and 1960, and with net gains in numbers of clerical workers being exceeded only by operatives.

In contrast with the other white-collar professions, inter-occupational mobility of sales workers and clerical workers is very low. Gains have been largely through new entries, and as each cohort moves into the 20-24 year class, there is a significant decline of rates of employment participation among women clerical workers. This undoubtedly is due to motherhood and family responsibilities. Although participation rate profiles continue to decline after 25, employment levels in 1960 were far higher than in previous census years and the numbers of women entering or re-entering clerical employment after 25 years of age greatly exceeded the numbers entering any other occupation, excepting only the combined category of household and other service workers.

Sales and Kindred Workers

The sales and clerical occupations have much in common, with most sales positions involving some minor clerical functions. Incidence of job-shifting between them is greater than from these groups to other occupations. Unlike clerical occupations, nearly two-thirds of sales workers are males. Only 2.6 percent were non-whites in 1960.

Since 1940, employment of sales workers in the South has increased by about 82 percent but it remains the smallest white-collar group and

its percentage distribution is slightly lower in the region than in the nation. Florida has the largest relative concentration of sales workers, a condition which probably is related to tourist trade and a variety of promotion activities.

Craftsmen, Foremen and Kindred Workers

Numbers of craftsmen and foremen employed in the South were more than doubled between 1940 and 1960, and in Florida the increase was 270 percent. Several other states in which considerable expansion occurred in construction, urban growth or durablegoods manufacturing, also registered high percentage gains. These states included Texas, Mississippi and Alabama. Percentage distribution in 1960 was highest in Florida, Virginia and Texas. With overall regional percentage distribution of 12.53 percent in 1960, the group was second only to operatives in numbers of workers employed.

Inter-occupational mobility plays a more important role in filling demands for craftsmen and foremen than in any occupation except the professional and managerial groups. In the South between 1950 and 1960, about 45 percent of all employees gained by this occupation group, which is predominantly male, were received by transfer from other occupations. In the 1961 national survey on job-shifting, this group, with 68.1 percent, led all occupations in the proportion of job-shifters who were re-employed in the same main occupation. Wage levels for craftsmen are high in relation to their general education attainments. When a mechanical skill has been acquired, even in a narrow occupational sub-classification, the attractive wages and growing demands for craftsmen are incentives towards continued employment of an individual in this group.

The hard cord of manual training problems is centered in this group. General educational attainments are less critical than thorough training in a specific skill. Qualifications are acquired more frequently through experience than through schooling. A U. S. Department of Labor survey in 1963 indicated that not more than 40 percent of craftsmen in the U. S. had learned their skills through formal training, which was broadly defined to include vocational training in secondary schools and apprentice training, as well as in trade schools.[3] The remainder were prepared through on-job training and more casual types of training and experience.

Operatives and Kindred Workers

This group, which constituted 13.32 percent of all southern workers in 1960, is the largest in numbers and percentage distribution of all main occupations. It is composed essentially of workers of medium-level skills, who assemble components, feed, drive or operate machines which do not require the guidance of a skilled craftsman. High incidence of operatives in the South is attributable in part to growth of textile, lumber, paper and chemical fiber industries, which are oriented to material inputs and in part to relatively low-cost labor. Nearly 70 percent of textile manufacturing employees are operatives. More recently, growth of electronics and apparel manufacturing industries have added many operatives, the majority of which are women. In total employment, about two-thirds of the operatives are men.

Although numerical increases of operatives in the South since 1940 have exceeded those in clerical workers and craftsmen, percentage changes have been much lower, and operatives ranked eight in 1950-1960 in order

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[3]Formal Occupational Training of Skilled Workers. Manpower/ Automation Monograph No. 2, December 1964. U. S. Department of Labor.

of percentage gains by occupations. In percentage distribution, North Carolina and South Carolina led all states, with nearly one-fourth of all employed persons being operatives. Although Florida led in numerical gains, it remained the lowest in percentage distribution of operatives, with only 12.5 percent.

Virtually all of the net gains of male operatives have come in ages under 25. There is net out-mobility at all ages above 25 and male operatives are by far the most important source from which trainees and replacements for craftsmen are recruited. Women enter this occupation in considerable numbers both from 15 to 19 and between ages 25 and 34. However, there is a net mobility loss of women as well as men at ages over 35.

Job-training is the most common method in which operatives acquire skills, and in many positions not much pre-employment training is required. The training problem among operatives, therefore, is not so much a problem of meeting initial, minimum skill requirements as that of upgrading workers through on-job experience to develop their potentials.

Private Household Workers

In this low-skilled group, about 97 percent of the employees are women and about 81 percent are non-white. The occupation group suffered a decline of about 27 percent in employment between 1940 and 1950. It regained most of the losses between 1950 and 1960, in numbers of workers, but lost ground in percentage distribution.

Because of its low skill requirements, training for entrance into this group poses few problems, and is not directly affected by most changes

in production technologies. Indirectly, however, many influences are at work, including relative wage levels in and out of this low-paid occupation group; needs of working mothers and consequent demand for nurses and household servants; transfer of some traditional functions from the household to more centralized services provided by laundries and restaurants; tighter supply conditions arising from widespread out-migration of non-whites, and from their increasing opportunities for employment in other occupations.

There are some net new entries in age groups up to 45 years, and some net gains by transfer in ages all the way up to 55 years.

Service Workers

Although percentage distribution of service workers remains lower in the South than nationally, numbers in this occupation group have increased to more than twice the 1940 employment level. Among states, Florida is highest with nearly 10 percent employed in the services. Employment was fairly evenly divided between the sexes in 1960, with 45 percent males and 55 percent females. The group provides employment for a relatively large proportion of non-whites, but percentage of non-whites decreased from 40.2 in 1950 to 37.2 in 1960.

Service workers execute for privately operated enterprises and for government agencies and institutions practically all of the service functions performed in private households by domestic servants. Also included are attendants, guards, police and firemen. Partly because of the very low demand for service workers in manufacturing industries, and habitual acceptance of many untrained persons for employment in service positions in any sector, not much emphasis has been placed upon pre-employment training of service personnel. Increased enrollment in

formal training would do much to improve employability of potential service workers, especially in government and institutional positions.

Farmers and Farm Managers and
Farm Laborers and Foremen

These two main occupation classifications include about 95 percent of all persons employed in the farm industry sector. Largely because of declining farm labor demands due to technological advances and increased mechanization in agriculture, farm workers and their families have provided the principal base of labor supplies for non-farm occupational adjustments in the South for several decades. Between 1940 and 1960, the number of farmers decreased by 63.7 percent, while employment of farm laborers decreased by 61.2 percent. During the same period, percentage distribution of farmers among all workers fell from 20.7 percent to 5.5 percent. For farm laborers, the decline was from 13.6 percent distribution in 1940 to 3.9 in 1960.

In these occupation groups in 1950-1960 there was a net loss through occupational mobility in every age cohort except farmers in the 15-19 age group, where net entries totaled less than 10,000. Losses of farm laborers by transfer were highest in ages below 25 years, but more than 300,000 men in the South between the ages of 35 and 54 left farming in 1950-1960, and 415,000 farmers over 55 years died or retired. In 1960, median age of farmers in the South was 50.2 years. For farm laborers it was 34.6 years.

Farming is predominantly a male occupation, with 94.8 percent of farm operators and 82.3 percent of farm laborers in 1960 being men. About 18 percent of farm operators were non-whites, but 48.4 percent of farm laborers were Negroes. The most important indirect effect of farm employment

losses is the out-migration it has induced from rural areas. Between 1950 and 1960, there was a decrease of about 1.5 millions of farm workers, but net out-migration of the population from non-urban areas of the South (exclusive of Florida) was estimated at 4.2 millions. Nearly all of the farm workers in these out-migrants necessarily shifted to some kind of non-farm occupation, both in and out of the South, and many persons who remained in rural or even rural-farm residences were employed off the farm.

There are too many aspects of farm to non-farm adjustments to permit extensive coverage in this summary. In general, farm workers have shown great flexibility and adaptability in negotiating the serious obstacles to non-farm employment, but relatively few of these workers have been adequately trained for skilled positions and much potential manpower has not been utilized fully. Although numbers of displaced farm workers will be lower in the future, the broad challenge of providing a good general education and appropriate occupational training to enable rural area young people to move directly into non-farm employment has not been met satisfactorily. In the regional south in 1960, the median of schooling completed by persons 14-years and over was 10.7 years for urban residents but only 8.9 years for rural residents. For non-whites, urban residents had 8.5 years and rural residents only 7.1 years.[4]

Laborers, Except Farm and Mine

Percentage distribution in this unskilled group continued to decrease, but employment levels in the South were less changed than in any other

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[4]U. S. Census of Population, 1960. U. S. Summary, Table 241.

occupation, sustaining only a 5.5 percent loss in numbers between 1950 and 1960. Many young people with limited education and skills find initial employment as laborers, and nearly 25 percent of those employed in 1960 were under 25 years of age. The group is predominantly male, only 3.0 percent being women. In 1960, 48.4 percent of southern laborers were non-white as compared with 50.9 percent ten years earlier.

Geographical migration rates for laborers are very high for short moves, but for interstate movement, rates of migration for workers who continue as laborers are among the lowest of any occupation. Above 25 years of age, occupational out-mobility among laborers is relatively greater than for other occupations, except for farmers and farm laborers. Their vertical occupational mobility is very limited. Job-shifting surveys for 1961 indicate that, in the nation, only 7.6 percent of laborers moved up to white-collar jobs, and only 8.1 percent shifted up to jobs as craftsmen or foremen. The remainder, or nearly 85 percent of the shifters returned to unskilled jobs or relatively low-skilled positions as operatives or service workers.[5]

U. S. Department of Labor reports that 1962-1963, however, indicate that persons last employed as laborers who migrate out of a county may achieve greater occupational progress than other job-shifters, probably because both their propensities toward migration and re-employment prospects are influenced to a greater extent by their general educational achievements than by previous experience as laborers. At any rate, among such migrant workers, only 35.1 percent returned to jobs as non-farm laborers, while 17.6 percent were employed in white-collar positions.[6]

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[5]Job Mobility in 1961. Special Labor Force Report No. 35. U. S. Department of Labor, Washington.

[6]Geographic Mobility and Employment Status, March 1962 - March 1963. Special Labor Force Report. U. S. Department of Labor, Washington.

PROJECTIONS OF OCCUPATIONAL EMPLOYMENT IN 1970 AND 1980

Data and Procedures

The preceding material on southern and national occupational employment from 1940 to 1960 has a firm historical base, having been drawn mainly from decennial Census statistics. Further discussions might be developed, but the data and conclusions are not considered controversial. The same cannot be said for projections, for the computations must rest upon numerous explicit or implicit assumptions and their fulfillment may be significantly influenced by events which could not have been predicted.

The projections presented here, like any other, should be considered, at best, as guides. Census data on occupational employment of southern workers since 1940 were extrapolated and from the results, occupational percentage distributions for 1970 and 1980 were computed. These estimated percentages then were applied to BLS labor force projections for the South for 1970 and 1980, to project numbers of workers employed in the respective main occupations. Some judgments were introduced, as will be indicated subsequently, and assumptions were made as to appropriate allowances for unemployment and military service.

An advantage of this methodology is that results reflect historical trends in occupational employment and labor force projections as well, without first projecting employment by industry classifications. A point of possible controversy is the inherent implication that southern industrial growth to 1980, and its attendant occupational demands, will be consistent with these recent historical trends in overall employment and employment by main occupation.

Occupational Distribution of the Employed

Extrapolation of southern occupational employment since 1940 indicated that percentage distributions in 1970 and 1980 could be expected to approximate those presented in Table 7. For purposes of comparison, percentage distributions projected for the United States by the U. S. Department of Labor also are shown.

It was necessary to adjust initial extrapolations in several instances to obtain realistic estimates. For example, decrease in numbers of southern farm operators and farm laborers from 1940 to 1960 was so pronounced that linear regression by least squares methods would estimate negative numbers of workers in these groups for 1980. On the other hand, industries which use large proportions of operatives and other blue-collar workers have contributed very heavily to southern nonfarm growth since 1940. Relatively high employment is expected to continue in the blue-collar category but unadjusted extrapolations would result in unrealistically high percentage distributions in relation to national trends.

In the distributions projected here, converging trends are evident for the South and the nation in white-collar and farm occupational categories. In the blue-collar and lower-skilled service occupations, projected differentials are somewhat greater than in 1960, with the South employing relatively more craftsmen, operatives and nonfarm laborers in 1970 and 1980, and relatively fewer service workers than the nation as a whole.

The nature of southern industrial growth from 1940 to 1960, and later, unquestionably has had strong influences in determining occupational composition of the employed workers. Trends in occupational employment, therefore, provide confirmation as to the general nature of industrial growth trends, but projection by main occupation alone cannot

Table 7. Percentage distribution of employed workers in the South and U. S. by main occupation for 1960, and projections for 1970 and 1980.

Main occupation	1960		1970		1980		Differentials, South vs. nation		
	South[a]	U.S.[b]	South	U.S.[b]	South	U.S.[b]	1960	1970	1980
Professional, tech.	10.1	11.2	12.7	13.5	14.9	15.7	-1.1	- .8	- .8
Managers, proprietors	9.0	10.6	8.9	10.3	9.4	10.4	-1.6	-1.4	-1.0
Clerical workers	12.3	14.7	15.0	16.1	15.9	16.9	-2.4	-1.1	-1.0
Sales workers	7.3	6.6	7.5	6.5	7.5	6.5	1.3	1.0	1.0
Totals, white-collar category	38.7	43.1	44.1	46.4	47.7	49.5	-4.4	-2.3	-1.8
Craftsmen, foremen	13.1	12.8	13.3	12.8	13.5	12.9	.3	.5	.6
Operatives	19.2	18.0	18.7	17.6	17.6	15.9	1.2	1.1	1.7
Laborers, except farm and mine	6.0	5.5	5.0	4.6	4.4	4.0	.5	.4	.4
Totals, blue-collar category	38.3	36.3	37.0	35.0	35.5	32.8	2.0	2.0	2.7
Private household workers	4.8	3.3	3.9	-	3.1	-	-	-	-
Service workers	8.5	9.2	9.6	-	10.0	-	-	-	-
Totals, services category	13.3	12.5	13.5	13.7	13.1	14.7	.8	- .2	-1.6
Farmers, farm mgrs.	5.7	4.2	3.2	-	2.2	-	-	-	-
Farm laborers, foremen	4.0	3.9	2.2	-	1.5	-	-	-	-
Totals, farm cat.	9.7	8.1	5.4	4.9	3.7	3.0	1.6	.5	.7
Totals, all occupations	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-

[a]Recomputed from 1960 Census data presented in Table 2. Workers tabulated in category "occupation not reported" have been redistributed in same proportions as respective occupational distributions.

[b]U. S. data for 1960 and projections for 1970 are from Table E-8, President's 1967 Manpower Report, U. S. Dept. of Labor. Projections for 1980 have been extrapolated from projections in that report for 1970 and 1975.

be applied across the board to predict future occupational distribution in specific industries.

Labor Force Projections

The next major procedural step was to aggregate total numbers in the labor force in the 13 southern states for 1970 and 1980, from state projections by the Bureau of Labor Statistics.[7] These data are presented in Table 8. The percentage of increase for males in these projections was 18.6 in 1960-1970 and 18.0 in 1970-1980. For females, the increase between 1960 and 1970 was 41.3 percent and 25.6 percent in 1970-1980. The combined labor force increase for both sexes was 25.8 percent in 1960-1970 and 19.6 percent in 1970-1980.

Projected percentage increases in the southern labor force are greater than for the nation's labor force, in both sexes, for a number of reasons. These include prospects for increasingly better education and training programs in the South; a foreseen reduction in population losses by out-migration; changes in relative age distribution in population; increasing urbanization; continued growth of labor-oriented industries in the South; and fewer obstacles to employment of women and non-whites.[8]

Because projections in Table 8 pertain to the overall labor force, adjustments were necessary to allow for unemployment, for persons in active military service, and for other minor attrition. In 1960, about

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[7]Table 2, Labor Force Projections by State, 1970 and 1980. Special Labor Force Report No. 74, 1966. Bureau of Labor Statistics, U. S. Department of Labor, Washington.

[8]Some of these factors are discussed in Special Labor Force Report No. 74, referenced above.

Table 8. Population and labor force (excluding armed forces overseas) 14 years and over in the 13 southern sates, 1960, and projections for 1970 and 1980

State	Population (thousands)			Labor force (thousands)			Labor Force Participation rates			Percentage increase in labor force	
	Census report	Projected		Census report	Projected						
	1960	1970	1980	1960	1970	1980	1960	1970	1980	1960-70	1970-80
					Both Sexes						
Va.	2,753	3,371	3,937	1,533	1,928	2,276	55.7	57.2	58.7	25.8	18.1
N. C.	3,119	3,693	4,210	1,754	2,145	2,444	56.3	58.1	58.1	22.2	14.0
S. C.	1,579	1,897	2,183	896	1,109	1,270	56.7	58.5	58.2	23.7	14.6
Ga.	2,688	3,275	3,792	1,516	1,924	2,228	56.4	58.7	58.6	26.9	15.8
Fla.	3,558	4,916	6,397	1,887	2,672	3,566	53.0	54.3	55.8	41.6	33.5
Ky.	2,111	2,357	2,595	1,034	1,218	1,413	51.3	54.2	56.1	17.8	16.0
Tenn.	2,499	2,929	3,287	1,314	1,617	1,860	52.6	55.2	56.6	23.1	15.0
Ala.	2,218	2,580	2,980	1,153	1,415	1,684	52.0	54.8	56.5	22.7	19.1
Miss.	1,439	1,696	1,939	743	935	1,104	51.6	55.1	56.9	25.9	18.0
Ark.	1,249	1,459	1,616	610	769	894	48.8	52.7	55.4	26.1	16.3
La.	2,164	2,628	3,154	1,092	1,375	1,711	50.5	52.3	54.2	25.9	21.4
Okla.	1,668	1,881	2,054	854	1,016	1,160	51.2	54.0	56.5	19.0	14.1
Tex.	6,563	7,949	9,357	3,636	4,553	5,503	55.4	57.3	58.8	25.2	20.8
Totals	33,608	40,631	47,501	18,022	22,676	27,113	53.6	55.8	57.1	25.8	19.6
U.S.Totals	126,277	148,944	173,161	69,877	85,257	100,670	55.3	57.2	58.1	22.0	18.1
% of U.S.	26.6	27.3	27.4	25.8	26.6	26.9					

Table 8. (continued)

Totals	Population (thousands) Census report 1960	Projected 1970	Projected 1980	Labor force (thousands) Census report 1960	Projected 1970	Projected 1980	Labor Force Participation rates 1960	1970	1980	Percentage increase in labor force 1960-70	1970-80
					Males						
South	16,323	19,607	22,867	12,253	14,528	16,880	75.1	74.1	73.8	18.6	18.0
U. S.	61,315	71,795	83,380	47,468	55,105	64,246	77.4	76.8	77.1	16.1	16.6
South as % of U.S.	26.6	27.3	27.4	25.8	26.4	26.3					
					Females						
South	17,285	21,024	24,634	5,766	8,145	10,233	33.4	38.7	41.5	41.3	25.6
U. S.	64,960	77,148	89,781	22,410	30,152	36,424	34.5	39.1	40.6	34.5	20.8
South as % of U.S.	26.6	27.3	27.4	25.7	27.0	28.1					

Source: Table 2, Labor Force Projections by State, 1970 and 1980. Special Labor Force Report No. 74, 1966. Bureau of Labor Statistics, U. S. Department of Labor, Washington.

7.5 percent of the nation's total labor force was either unemployed or not available for tabulation in civilian employment classifications. In the South, where large numbers of active military personnel are normally stationed, the reductions from the total labor force was about 9.2 percent.

In view of many uncertainties inherent in estimating either unemployment or military manpower requirements at any future date, 9.0 percent was taken as a realistic approximation of the reduction to be made from future southern labor force estimates because of civilian unemployment and military service. Application of this assumption to the total labor force projections presented in Table 8 resulted in projecting total civilian employment at a level of about 20,635,000 workers in the South in 1970 and 24,673,000 workers in 1980. These adjusted estimates were used as bases for projecting employment by occupation.

Projections of Numbers Employed

The projected occupational distributions of workers shown in Table 7 were applied to the adjusted labor force projections to obtain estimates as to numbers of workers who would be employed in the South in each main occupation in 1970 and 1980. These projections and resultant percentage changes in numbers of workers by occupation are presented in Table 9. Naturally, increase in total employment in 1970-1980 will be less than in 1960-1970, because projected rate of labor force growth is lower in the 1970-1980 period, as indicated in Table 8.

In general, occupational employment trends evident from 1940 to 1960 will be continued. The white-collar category is projected to achieve

Table 9. Occupational employment in the South, 1960; projections for 1970 and 1980; and numbers and percentages of projected changes

Main occupation	1960[a]	1970[b]	1980[b]	Changes in numbers of workers		Percentage changes	
				1960-70	1970-80	1960-70	1970-80
	(thousands of workers)						
Total civilian employment	16,439	20,635	24,673	4,196	4,038	25.5	19.5
Professional, technical	1,655	2,620	3,676	965	1,056	58.3	40.3
Managers, proprietors	1,467	1,837	2,319	370	482	25.2	26.2
Clerical workers	2,023	3,095	3,923	1,072	828	53.0	26.7
Sales workers	1,190	1,548	1,850	358	302	30.1	19.5
Totals, white-collar category	6,335	9,100	11,768	2,765	2,668	43.6	29.3
Craftsmen, foremen	2,156	2,744	3,331	588	587	27.3	21.4
Operatives	3,152	3,859	4,342	707	483	22.4	12.5
Laborers, ex. farm & mine	994	1,032	1,086	38	54	.4	.5
Totals, blue-collar cat.	6,302	7,635	8,759	1,333	1,124	21.1	14.7
Private household workers	791	805	766	14	-39	1.8	-4.8
Service workers	1,393	1,981	2,467	588	486	42.2	24.5
Totals, services cat.	2,184	2,786	3,233	602	447	27.6	16.0
Farmers, farm managers	949	660	543	-289	-117	-30.5	-17.7
Farm laborers, foremen	669	454	370	-215	- 84	-32.1	-18.5
Totals, farm category	1,618	1,114	913	-504	-201	-31.2	-18.0

[a]See footnote a, Table 7.

[b]Computed by applying projected percentage distributions presented in Table 7, to BLS labor force projections after adjusting assumed unemployment and military service requirements in 1970 and 1980.

the greatest numerical and percentage changes, 43.6 percent in 1960-1970 and 29.3 percent in 1970-1980. In this category, the clerical worker group will make the greatest advance in 1960-1970. Professional and technical workers are projected to make the greatest change in 1970-1980, both in numbers and percentage wise.

Increases in numbers of craftsmen and operatives will be smaller in both decades than in 1950-1960, but operatives will continue to constitute the largest main occupational group, with craftsmen ranked fourth, after the clerical and professional groups.

The services category, though less than one-half the numbers of operatives and craftsmen, will make somewhat larger percentage gains. However, employment of private household workers will follow a downward trend.

The farm category, in which such drastic adjustments have occurred, will continue its downward trend in numbers of workers, but at a much reduced rate.

Occupational Education Implications

Regardless of whether the projected employment by occupation is attained in 1970 and 1980 retraining southern workers no longer needed in agriculture will continue to be a serious problem, though much of the farm out-migration will have run its course. There is some basis for expecting several other types of inter-occupational mobility to become less marked because of increased opportunities for pre-employment training. In the professional and technical occupations and among skilled craftmen, studies have shown that high percentages of workers who shift jobs are re-employed in the same main occupation.[9]

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[9] These studies include Special Labor Force Reports No. 35 and No. 85, Bureau of Labor Statistics and Current Population Reports, Series P-50, No. 70, Job Mobility of Workers in 1955.

On the other hand, continuing technological changes and increased wage incentives for adults to upgrade their employment status through education and training should justify implementation of present occupational education programs.

The most obvious and urgent need for expanding occupational programs is the great increase foreseen in numbers of young people entering the labor force. In 1970, the projected overall labor force in the South will contain 5,546,000 persons in ages 14-24. This will be a labor force increase of nearly two-thirds more than in 1960, and will be more than twice the number of workers in these ages who were actually employed in civilian jobs in 1960. By 1980 the projected southern total labor force will total 6,353,000 persons in the 14-24 age class.

In closing the discussion on projections, it is reiterated that specific estimates of future occupational employment can be made only with cognizance of many uncertainties, but skill prerequisites undoubtedly will be more exacting in virtually every type of work.

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CHARLES E. LEWIS, M.S. ..... Sociology and Anthropology
RICHARD D. ROBBINS, M.S. ..... Economics
RICHARD L. TEAGUE, M.S. ..... Sociology and Anthropology
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TROY F. STALLARD, B.A. ..... Psychology
THOMAS C. TUTTLE, A.B. ..... Psychology
ELIZABETH G. UTERMOH[illegible], B.S. ..... Adult Education
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